

REMARKS

Applicant submits this Amendment After Final in response to the Final Office Action mailed on May 2, 2007.

In the Final Office Action, the Examiner rejected claims 1-7 and 12-17 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sundar (U.S. Patent No. 6,327,517) in view of Kroeker (U.S. Patent Application No. 2002/0031420). The Examiner also rejected claim 11 (although claim 7 was intended) under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite; and objected to claim 13 as containing a grammatical error.

By this Amendment After Final, Applicant proposes to amend currently pending claims 1, 2, 7, 12, 13, and 16. In particular, Applicant proposes to amend claims 1, 7, and 12 to clarify the claimed invention; claims 2 and 13 to obviate the Examiner's grammatical objection; and claim 16 to correct its improper dependency. Upon entry of this Amendment, claims 1-7 and 12-17 will remain pending. Of these, claims 1, 7, and 12 are the sole independent claims.

As an initial matter, Applicant gratefully thanks the Examiner for her generous grant of the personal interview conducted on November 2, 2006, between Applicant's representatives, Timothy McNulty and Christopher Agrawal, and USPTO representatives, Examiner Gina Lupino and Supervisory Patent Examiner Saul Rodriguez.

Substance of the Interview

During the interview, Applicant's representatives pointed out the differences between Applicant's claimed invention and the Sundar reference. Specifically, Applicant's representatives argued that Sundar does not teach a "linear transfer path."

The Examiner asserted that a “linear transfer path” may include any circuitous path between the process chambers and load lock chambers of the system.

Applicant’s representatives also argued that the detecting mechanism of Sundar is not “stationed at a carry-in route” of the second process chamber. The Examiner took the position that the “carry-in route” of Sundar includes any position along the path of a wafer through the system, and not only along the entryway of the second process chamber. The Examiner also asserted that the detecting mechanism of Sundar could determine a relative position between the wafer and the table simply by knowing whether the wafer is interrupting the sensor assembly 230.

Finally, the Examiner indicated that the § 112 rejection of claim 11 should have been directed to claim 7, but that the rejection would be withdrawn in view of Applicant’s arguments that the claim is sufficiently drawn to a single class of statutory subject matter (i.e., a method).

§ 112 Rejection of Claim 7 (“Claim 11” in the Office Action)

Claim 7 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner states that the claim, “recites both an apparatus and the method steps of using the apparatus” (Office Action, page 3). Applicant respectfully traverses this rejection because claim 7 is directed to only a single class of statutory subject matter.

According to the M.P.E.P., “[a] single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph. *M.P.E.P.* § 2173.05(p) II. *See also IPXL Holdings v. Amazon.com, Inc.*,

430 F.2d 1377, 1384 (Fed. Cir. 2005) (holding that a claim reciting both a system and the method for using that system does not apprise a person of ordinary skill in the art of its scope, and is invalid under section 112, paragraph 2) and *Ex parte Lyell*, 17 USPQ 2d 1548 (Bd. Pat. App. & Inter. 1990) (holding that a claim directed to “a workstand and method for using same” is invalid under section 112, paragraph 2).

Claim 7 is not indefinite because it particularly points out and distinctly claims the subject matter, including the single statutory class (i.e., the method), to which it is directed. In general, a claim reciting, “A substrate processing *method* of a substrate processing apparatus including: [structural elements], *said method including*: [method steps]” (emphasis added) is directed to the method, and not the structure of the apparatus to which the method pertains. Therefore, the claim is directed only to a single class of statutory subject matter and Applicant respectfully requests that the rejection of claim 7 under § 112 be withdrawn.

§ 103 Rejection of Claims 1-7 and 12-17

Applicant respectfully traverses the rejection of claims 1-7 and 12-17 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sundar (U.S. Patent No. 6,327,517) in view of Kroeker (U.S. Patent Application No. 2002/0031420).

Currently amended independent claims 1 and 12 recite, *inter alia*, “a detecting mechanism which is stationed *in the second process chamber* along a carry-in route for the substrate to be conveyed to a table in said second process chamber via a gate valve thereof and which is configured to detect a relative position between the substrate to be conveyed by said transfer mechanism and the table” (emphasis added).

Sundar discloses a substrate transferring system having a detecting mechanism stationed *in the load lock chamber*. (Col. 5, lines 38-60; Figs. 1 and 2.) Specifically, Sundar discloses a sensor assembly 230 disposed at an opening 204 of a load lock chamber 202/210 (i.e., equivalent to load lock chambers 105, 110 of Fig. 1). (Col. 5; lines 1-6, lines 38-60.) Because of this arrangement, the system of Sundar may detect substrates entering and exiting the load lock chambers. However, Sundar does not teach or suggest “a detecting mechanism which is stationed in the second process chamber,” as recited in currently amended independent claims 1 and 12.

Accordingly, Sundar fails to teach or suggest each and every limitation of independent claims 1 and 12. Kroeker fails to cure the deficiencies of Sundar. Therefore, neither Sundar nor Kroeker, either alone or in combination, teaches or suggests each and every limitation of claims 1 and 12.

Thus, Applicant respectfully submits that claims 1 and 12 are allowable over the cited references. Claims 2-6 and 13-17 depend from claims 1 and 12, respectively, and are allowable over the cited references for at least the same reasons as those discussed above with respect to claims 1 and 12. Applicant respectfully requests that these rejections under §103(a) be withdrawn.

With regard to amended independent claim 7, Sundar does not teach or suggest, “detecting a relative position between the substrate *while it is in the second process chamber* and a table *in the second process chamber*,” as recited in currently amended claim 7 (emphasis added). Sundar merely teaches the use of sensor assembly 230 to determine the position of the substrate while it is entering or exiting *the load lock chamber* 105, 110, 210. (Col. 5, line 66 to Col. 6, line 18.)

Moreover, Sundar does not disclose “a transfer chamber in which a linear transfer path is provided,” as required by independent claims 1, 7, and 12. Applicant's specification describes a “linear transfer path” in the transfer chamber as being defined by a rail 27 extending linearly in the x-direction. (Specification, page 11.) In contrast, the transfer path of Sundar is defined by two, rotational three-arm robots 120, 145, each having its own transfer chamber 115, 140 in an arrangement that creates two separate planar transfer paths. (Fig. 1; Col. 4 lines 9-40.)

Accordingly, Sundar fails to teach or suggest each and every limitation of independent claim 7. Kroeker fails to cure the deficiencies of Sundar. Therefore, neither Sundar nor Kroeker, either alone or in combination, teaches or suggests each and every limitation of claim 7.

Thus, Applicant respectfully submits that claim 7 is allowable over the cited references and requests that this rejection under §103(a) be withdrawn.

Conclusion

Applicant respectfully requests that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 1-7 and 12-17 in condition for allowance. Applicant submits that the proposed amendments of claims 1, 2, 7, 12, 13, and 16 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicant respectfully points out that the final action by the Examiner presented some new arguments as to the application of the art against

Applicant's invention. It is respectfully submitted that the entering of the Amendment would allow the Applicant to reply to the final rejections and place the application in condition for allowance.

Finally, Applicant submits that the entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicant submits that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicant therefore requests the entry of this Amendment, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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